

**REMARKS**

This is a full and complete response to the Office action dated June 30, 2006.

All comments and remarks of record are herein incorporated by reference. Applicant respectfully traverses these rejections and all comments made in the Office action. Nevertheless, in an effort to expedite prosecution, Applicant provides the following remarks regarding the cited references.

**DISPOSITION OF CLAIMS**

Claims 1 to 7 and 9 to 30 are pending in the application. Claim 8 has been canceled. Claim 1 has been amended to define the amorphous polyolefins. Claims 9 to 13 have been amended to correct dependency in view of the cancellation of claim 8.

**REMARKS REGARDING 35 USC §103****Remarks regarding De Keyzer I**

Claims 1-30 stand rejected under 35 USC §102(b) as allegedly anticipated by, or, in the alternative, under 35 USC §103(a) as obvious over **De Keyzer et al.**, US 6,455,627, ("**De Keyzer I**"). Applicants respectfully traverse this rejection with regard to claims 1 to 7 and 9 to 30, as amended.

The Examiner has alleged that **De Keyzer I** discloses an adhesive composition based on polymeric blends of block polymers and amorphous polyolefins. The Examiner further alleges that the parameters of the block copolymer recited in the instant claims is either expressly disclosed or inherently met by the cited reference.

The Examiner concedes that the **De Keyzer I** reference is silent as to vinyl content, but however, presumes the instantly claimed vinyl content is either inherently possessed or obvious from the polymer disclosed in the cited reference, due to the alleged similarity in structure and overlap of properties.

In order to establish a prima facie case of obviousness, there must be (1) some suggestion or motivation to modify the references, (2) reasonable expectation of success

and (3) the prior art reference must teach or suggest all of the claim limitations. See MPEP §2143.

Applicants respectfully assert that **De Keyzer I** does not teach or suggest all of the claim limitations.

In particular, **De Keyzer I** does not teach or suggest an adhesive comprising an amorphous polyolefin and a selectively hydrogenated block copolymer having an S block and an E or E<sub>1</sub> block and having the general formula S-E-S, (S-E<sub>1</sub>)<sub>n</sub>, (S-E<sub>1</sub>)<sub>n</sub>S, (S-E<sub>1</sub>)<sub>n</sub>X, wherein prior to hydrogenation the E block or E<sub>1</sub> block is a polydiene block, selected from the group consisting of polybutadiene and mixtures of polybutadiene and polyisoprene, and wherein the vinyl content of the polydiene block prior to hydrogenation is from 72 to 90 mole percent.

**De Keyzer I** is instead directed to a hot melt pressure sensitive positioning adhesive comprising a styrene-(butadiene or isoprene)-styrene block copolymer (SIS or SBS), and a hydrogenated styrene-isoprene-styrene-isoprene block (SISI) copolymer. The adhesives of **De Keyzer I** can also comprise amorphous ethylene/propylene copolymers.

Indicated in **De Keyzer I** is that the material of choice for adhesives had been Kraton G-1650, which is a hydrogenated styrene-butadiene-styrene (SBS) block copolymer having a vinyl content of 35%. See De Keyzer I, column 1, lines 45-50; vinyl content of G-1650 is disclosed in **De Keyzer et al.**, US 6,465,557, ("**De Keyzer II**"), column 1, line 58.

As further indicated in **De Keyzer I**, "[a]morphous polyalpha-olefins [APE's] are well known to be incompatible with styrene-ethylene/butylene-styrene [SEBS] block copolymers." See De Keyzer I, column 4, lines 35-37 (underline added). However, **De Keyzer I** also notes that amorphous polyalpha-olefins (APE's) have acceptable compatibility with hydrogenated styrene-isoprene block copolymers such as styrene-ethylene/propylene-styrene and styrene-ethylene/propylene-styrene-ethylene/propylene block copolymers. See De Keyzer I, column 4, 37-42.

**De Keyzer I** indicates that styrene-isoprene block copolymers can be added to improve the properties of adhesives having styrene-ethylene/butylene-styrene (SEBS)

block copolymers and APE. See De Keyzer I, column 4, lines 62-65. An example of such a styrene-isoprene block is G-1730, and is a hydrogenated styrene-isoprene-styrene-isoprene (SISI) block copolymer. See De Keyzer I, column 6, lines 23-24.

Therefore, De Keyzer I indicates that SEBS block copolymers are known to be incompatible with APE's, but also indicates that styrene-isoprene block copolymers such as G-1730 are compatible with APE's. Accordingly, De Keyzer I does not teach or suggest a block copolymer compatible with amorphous polyolefins wherein the E block or E<sub>1</sub> block is a polydiene block selected from the group consisting of polybutadiene and mixtures of polybutadiene and polyisoprene and having the vinyl content of the instant claims.

Moreover, because De Keyzer I indicates the use of an SEBS copolymers are incompatible with APE's, and further indicates that styrene-isoprene block copolymers should be used for compatibility with APE's, De Keyzer I teaches away from the claimed invention.

Applicants also note that besides G-1730, De Keyzer I also utilizes RP-6917 in the Examples of the reference, which is an SEBS block copolymer having a vinyl content of 70%. See De Keyzer I, column 9, line 21-27, and De Keyzer II, column 6, line 22 for vinyl content. Although RP-6917 is compounded with G-1730 and an APE, Applicants respectfully assert that the vinyl content of RP-6917 is outside the instant claimed range of 72-90 mole percent. Also, the molecular weight of RP-6917 is 286,000, which is outside the molecular weight of the instant claims.

Moreover, De Keyzer I, in column 9, lines 31-34 indicates that when RP-6917 is compounded with G-1730, the styrene-isoprene block copolymer compatible with APE's, the hot-melt viscosity is decreased considerably compared to when RP-6917 is used alone. Therefore, De Keyzer I indicates that for an SEBS copolymer such RP-6917, an SISI block copolymer, such as G-1730, should be added to improve compatibility. See De Keyzer I, column 9, lines 31-34 and table 4.

Consequently, De Keyzer I does not teach or suggest an SEBS copolymer having a vinyl content within the claimed range, and furthermore, indicates such copolymers are not compatible with APE's.

Remarks regarding **De Keyzer II**

Claims 1-30 stand rejected under 35 USC §102(b) as allegedly anticipated by, or, in the alternative, under 35 USC §103(a) as obvious over **De Keyzer II**. Applicants respectfully traverse this rejection with regard to claims 1 to 7 and 9 to 30, as amended.

The Examiner alleges that **De Keyzer II** is clear as to the vinyl content and further alleges that it is reasonable to presume that the block polymer of **De Keyzer I** is the same as the polymer of **De Keyzer II**. The Examiner also argues that even if the polymers are not the same, it would have been obvious to use the polymer of the **De Keyzer II** in lieu of the polymer of **De Keyzer I**.

Applicants respectfully disagree.

Applicants respectfully assert that **De Keyzer II** does not teach or suggest the use of an amorphous polyolefin according to the instant claims. **De Keyzer II** at most indicates the use of liquid alpha-olefin polymers on page 5, line 59. However, the amorphous polyolefins as in amended claim 1 have a softening point of from 95°C to about 125°C or a softening point of from about 125°C to about 165°C and viscosities from about 400 cps to about 8500 cps at 190°C. The amorphous polyolefins of the claimed invention are clearly solid at room temperature. Since **De Keyzer II** is limited to liquid alpha-olefin polymers, it cannot be said that **De Keyzer II** teaches or suggests the claimed invention.

Furthermore, one of ordinary skill in the art would have no motivation to use the polymer of **De Keyzer II** in lieu of **De Keyzer I** because **De Keyzer I** teaches away from such a modification. As indicated above, **De Keyzer I** teaches that SEBS block copolymers are incompatible with APE's. See **De Keyzer I**, column 4, lines 35-37. Therefore, one of ordinary skill in the art would have no motivation to use an SEBS block copolymer of **De Keyzer I**, such as Polymer B in example 3, column 8, lines 17-22 in lieu of a copolymer in **De Keyzer II**. Accordingly, Applicants respectfully assert that no prima facie case of obviousness has been shown.

In light of the foregoing remarks, Applicants respectfully request that the 35 USC §103 rejections be withdrawn.

All comments and remarks of record are herein incorporated by reference. Applicant respectfully traverses these rejections and all comments made in the Office action.

REQUEST FOR EXTENSION OF TIME:


It is respectfully requested that a one month extension of time be granted in this case. The respective \$120.00 fee is paid by credit card (Form PTO-2038 enclosed).

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees, to Deposit Account No. 14.1437. Please credit any excess fees to such deposit account.

**Conclusion**

Having addressed all issues set out in the Office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,  
NOVAK DRUCE & QUIGG, LLP

  
Jason W. Bryan  
Reg. No. 51,505

1000 Louisiana Ave  
53<sup>rd</sup> floor  
Houston, Texas 77002  
T: 713-571-3400  
F: 713-456-2836